



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,349	09/13/2004	Takafumi Atarashi	Q83600	3852

23373 7590 03/28/2006
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,349

Applicant(s)

ATARASHI ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on December 14, 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>September 13, 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

Drawings

The formal drawings submitted on December 14, 2004, to replace the originally filed drawings are acceptable.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. *Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

Claims 1-20 are indefinite for lacking specific description of the claimed invention. While the claims are directed to a film-coated powder having a coating film on the surface of a substrate, the claims do not recite any limitations about what the film or the substrate each comprise. The claims in their present form merely describe the film-coated powder in terms of "spectrophotometric characteristic". Composition claims were held to be indefinite for being defined in terms of properties alone. Ex parte Slob, 157 U.S.P.Q. 172.

Further, claims 3-7 and 16-20 lack antecedent basis for the limitation "multi-layer film-coated powder". For example, although claim 1, from which claim 3 depends, is

directed to a film-coated powder, it does not refer to said powder as being multi-layered.

Claims 15-20 are also indefinite, as they fail to recite specific steps defining the process claimed therein, i.e., steps for producing the claimed multi-layer film-coated powder.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. ***Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bruckner et al. (U. S. Patent No. 6,689,205).***

Bruckner et al. disclose a multilayer interference pigment consisting of a transparent carrier material coated with alternating layers of metal oxides of low and high refractive index, which is obtained by alternate coating of the transparent carrier material with a metal oxide of high refractive index and with a metal oxide of low refractive index. See col. 1, lines 46-56 of Bruckner et al. (considered to meet the limitations of **claims 1-3, 10, and 15** regarding the substrate and the layers "having a different refractive index").

The thickness of the alternating layers is critical for the optical properties of the pigment. The thicknesses of the layers must be adjusted relative to one another, as the variation in color which takes place as the thickness of the film increases results from the intensification or attenuation of particular wavelengths of the light by interference. See col. 2, lines 26-56 of Bruckner et al., which also discloses that the thicknesses of the individual metal oxide layers, independently of their refractive index, ranges from 20 to 500 nm (considered to meet the limitations of **claims 4-6, 11-13, and 16-19** regarding the thicknesses of the coating layers).

The pigment can be used in a conventional manner for pigmenting paints, printing inks, plastics, cosmetics, and glazes for ceramics and glass; the pigment is preferably used for pigmenting agricultural films. See col. 4, line 59 to col. 5, line 11 of Bruckner et al.; this disclosure is considered to read upon **claims 8 and 9** regarding a coating composition, and a coating material formed by applying said composition thereto.

With respect to **claims 7, 14, and 20**, the limitations that the film-coated particles "are cut by processing them with focused ion beams" are considered process limitations and, as such, are not given patentable weight in claims drawn to products. Further, given that the claims in their present form do not recite any limitations regarding the particle size of the film-coated particles, pigment of Bruckner et al. is considered to inherently read upon the instant claims, as Patentees' pigment is a multi-layered pigment that encompasses Applicants' claimed "film-coated powder" or "multi-layer film-coated powder".

Additionally, because the reference disclosed a multi-layered pigment having layers of a specific thickness and of specific refractive indices, the characteristics recited in the instant claims (e.g., "film reflection intensity", "spectrophotometric characteristic", etc.) are considered inherently present in the pigment of Bruckner et al.

Conclusion

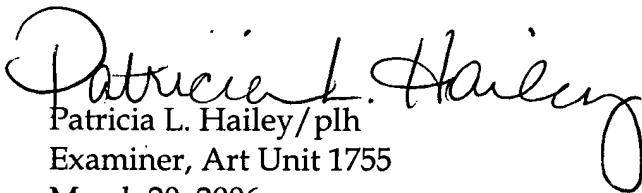
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patricia L. Hailey/plh
Examiner, Art Unit 1755
March 20, 2006


J.A. LORENZO
SUPERVISORY PATENT EXAMINER